

IN THE CLAIMS

Please amend the claims as follows:

1. (currently amended) A method of producing coated diamond particles including[[s]] the steps of providing a combination of a transition metal selected from zirconium, hafnium, niobium and tantalum, an activation metal and uncoated diamond particles, and heat treating the combination in a non-[oxidising]oxidizing atmosphere to cause the activation metal to bond to the diamond particles and the transition metal to form a carbide coating on the diamond particles.

2. (original) A method according to claim 1 wherein the transition metal is in particulate form.

3. (currently amended) A method according to claim 1 [or claim 2] wherein the transition metal is in mesh, sheet or layer form.

4. (currently amended) A method according to [any one of] claim[[s]] 1 [[to 3]] wherein the activation metal is in particulate form.

5. (original) A method according to claim 1 wherein the transition metal and activation metal are in particulate form and the combination is a particulate mass.

6. (currently amended) A method according to [any of the preceding] claim[[s]] 4 wherein the activation metal is .in an amount of no more than 2% by weight of the transition metal and activation metal.

7. (new) A method according to claim 5 wherein the activation metal is .in an amount of no more than 2% by weight of the transition metal and activation metal.

[[7]]8. (currently amended) A method according to [any one of claims 1 to 5] claim 4 wherein the activation metal is present in an amount of no more than [[0,2%]] 1.2% by weight of the transition metal and activation metal.

9. (new) A method according to claim 5 wherein the activation metal is present in an amount of no more than 1.2% by weight of the transition metal and activation metal.

[[8]]10. (currently amended) A method according to [any one of the preceding] claim[[s]] 1 wherein the heat treatment takes place in the presence of a gaseous halide.

[[9]]11. (currently amended) A method according to claim [[8]]10 wherein the gaseous haDde is gaseous chloride.

[[10]]12. (currently amended) A method according to claim[s or claim 9] 11 wherein the gaseous halide is produced in situ from a halide which volatilises under the conditions of heat treatment,

[[11]]13. (currently amended) A method according to claim [[10]] 12 wherein the halide which volatilises under the conditions of heat treatment is an ammonium halide.

[[12]]14. (currently amended) A method according to claim [[11]] 13 wherein the ammonium halide is ammonium chloride.

[[13]]15. (currently amended) A method according to [any one of the preceding claims] claim 14 wherein the heat treatment takes place at a temperature of at least 800°C.

[[14]]16. (currently amended) A method according to [any one of the preceding claims] claim 15 wherein the period of heat treatment is one to four hours.

[[15]]17. (currently amended) A method according to [any one of the preceding claims] claim 16 wherein the activation metal is selected from titanium, vanadium and chromium.

[[16]]18. (currently amended) A method according to claim [[15]]17 wherein the activation metal is chromium.

[[17]]19. (currently amended) A method according to [any one of the preceding claims] claim 18 wherein the transition metal is tantalum.

[[18]]20. A method according to [any one of the preceding claims] claim 19 wherein the activation metal bonded to the diamond covers a portion only of the surface of the diamond.

[[19]]21. (currently amended) A coated diamond particle wherein the coating comprises an activation metal bonded to the diamond surface and a layer, completely enclosing the diamond particle, of a carbide of a transition metal selected from zirconium, hafnium, niobium and tantalum.

[[20]]22. (currently amended) A coated diamond particle according to claim [[19]]21 wherein the activation metal covers a portion only of the diamond surface.

[[21]]23. (currently amended) A coated diamond according to claim 22[19 or claim 20] wherein the transition metal is tantalum.

[[22]]24. (currently amended) A coated diamond according to [any one of claims 19 to 21] claim 23 wherein the activation metal is selected from titanium, vanadium and chromium.

[[23]]25. (currently amended) A coated diamond according to claim [[22]]24 wherein the activation metal is chromium.

24. (Cancelled) A method of producing a metal coated diamond particle according to claim I and substantially as herein described with reference to any one of Examples 2 to 4, 6 and 7.

5. (Cancelled) A coated diamond according to claim 16 substantially as herein described with reference to any one of Examples 2 to 4, 6 and 7.